

Translation

PATENT COOPERATION TREATY

PCT/EP2003/013249



PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY
(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference P4027PWO-Dt/Ru	FOR FURTHER ACTION		See Form PCT/IPEA/416
International application No. PCT/EP2003/013249	International filing date (day/month/year) 25 November 2003 (25.11.2003)	Priority date (day/month/year) 18 December 2002 (18.12.2002)	
International Patent Classification (IPC) or national classification and IPC E04C 2/42			
Applicant PROTEKTORWERK FLOREZ MAISCH GMBH & CO. KG			

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>9</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> (sent to the applicant and to the International Bureau) a total of <u>9</u> sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>	
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the report</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input checked="" type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>	

Date of submission of the demand 16 July 2004 (16.07.2004)	Date of completion of this report 04 April 2005 (04.04.2005)
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

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International application No.

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Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.

- ☐ This report is based on translations from the original language into the following language _____, which is language of a translation furnished for the purpose of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)

2. With regard to the **elements** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:

- ☐ The international application as originally filed/furnished
- ☒ the description:
- pages _____ 1-22 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☒ the claims:
- pages _____, as originally filed/furnished
- pages* _____, as amended (together with any statement) under Article 19
- pages* _____ 1-30 _____ received by this Authority on _____ 16 July 2004 (16.07.2004)
- pages* _____ received by this Authority on _____
- ☒ the drawings:
- pages _____ 1/11-11/11 _____, as originally filed/furnished
- pages* _____ received by this Authority on _____
- pages* _____ received by this Authority on _____
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.

3. ☐ The amendments have resulted in the cancellation of:

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).

- ☐ the description, pages _____
- ☐ the claims, Nos. _____
- ☐ the drawings, sheets/figs _____
- ☐ the sequence listing (*specify*): _____
- ☐ any table(s) related to sequence listing (*specify*): _____

* If item 4 applies, some or all of those sheets may be marked "superseded."

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Box No. IV Lack of unity of invention

1. ☐ In response to the invitation to restrict or pay additional fees the applicant has:
 - ☐ restricted the claims.
 - ☐ paid additional fees.
 - ☐ paid additional fees under protest.
 - ☐ neither restricted nor paid additional fees.
2. ☒ This Authority found that the requirement of unity of invention is not complied with and chose, according to Rule 68.1, not to invite the applicant to restrict or pay additional fees.
3. This Authority considers that the requirement of unity of invention in accordance with Rules 13.1, 13.2 and 13.3 is
 - ☐ complied with.
 - ☒ not complied with for the following reasons:
See supplemental sheet
4. Consequently, this report has been established in respect of the following parts of the international application:
 - ☒ all parts.
 - ☐ the parts relating to claims Nos. _____

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Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: IV.3

Lack of unity of the invention

1. The present international application lacks unity a posteriori (PCT Rule 13.1; PCT International Search and Preliminary Examination Guidelines, paragraph 10.03). The reasons are as follows:

- 1.1 The international application contains the following groups of inventions:

<u>Group</u>	<u>Subject matter</u>	<u>Claims</u>	
		<u>Independent</u>	<u>Dependent</u>
A	Planar metal component	1	3-25 (insofar as directly or indirectly dependent on claim 1)
B	Planar metal component	2	3-25 (insofar as directly or indirectly dependent on claim 2)
C	Use	26	
D	Method	27	29-30 (insofar as directly or indirectly dependent on claim 27)
E	Method	28	29-30 (insofar as directly or indirectly dependent on claim 28)

- 1.2 The subject matter of independent claim 1 involves an inventive step (see Box V, point 2.1 below). The special technical feature (PCT Rule 13.2) of the invention defined in this claim is feature (b) and

Supplemental Box

(To be used when the space in any of the preceding boxes is not sufficient)

Continuation of: IV.3

solves problem (i) (see Box V, point 2.1 below).

The subject matter of independent **claim 2** involves an inventive step (see Box V, point 2.2 below). The special technical feature (PCT Rule 13.2) of the invention defined in this claim is feature (b) and solves problem (i) (see Box V, point 2.2 below).

- 1.3 The special technical features in **claims 1 and 2** are obviously not the same. Nor do they correspond, because they obviously solve different, unrelated problems.

There is therefore no technical relationship (PCT Rule 13.2) among the subjects of **claims 1 and 2** involving one or more of the same or corresponding special technical features. Since (at least) two inventions do not belong to a group linked by "special technical features", the application fails to meet the requirement of unity of invention (see decision W 0016/00 and PCT International Search and Preliminary Examination Guidelines, paragraph 10.03).

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V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**1. Statement**

Novelty (N)	Claims	1-30	YES
	Claims		NO
Inventive step (IS)	Claims	1-30	YES
	Claims		NO
Industrial applicability (IA)	Claims	1-30	YES
	Claims		NO

2. Citations and explanations**1. Reference is made to the following documents:**

D1: WO 86/06431 A (DONN INC) 6 November 1986
(1986-11-06)

D2: US-A-3 111 204 (HENRY PHARE DEREK) 19 November
1963 (1963-11-19)

D3: US-A-3 287 873 (LAURA MCDAILL) 29 November 1966
(1966-11-29)

D4: US-A-5 081 814 (MALONE LARRY W ET AL.)
21 January 1992 (1992-01-21)

D5: FR-A-2 518 611 (KIEFFER JOSEPH) 24 June 1983
(1983-06-24)

2. Proceeding from the available prior art (see point 1 above), claims 1-30 satisfy the PCT requirements for novelty (PCT Article 33(2)) and inventive step (PCT Article 33(3)). The reasons are as follows:

Claims 1-25 (Group A, B)

2.1 D1 is considered to be the prior art closest to the subject matter of independent **claim 1. Said document discloses (the references in *italics* relate to D1):**

(a1) a planar metal component 30 having a

- surface (*fig. 1-4; page 8, lines 5-6*) which extends from a first outer edge (upper edge in *fig. 3*) to a second outer edge opposite the first outer edge (bottom line in *fig. 3*),
- (a2) wherein the metal component region which is adjacent the first outer edge forms a first peripheral region (upper region in *fig. 3*) and the metal component region which is adjacent the second outer edge forms a second peripheral region (lower region in *fig. 3*), the two boundary regions being joined by a central region disposed therebetween (central region in *fig. 3*),
- (a3) there is formed at least in one of the peripheral regions at least one fully edged opening, the edging of which is formed partly by said peripheral region (26, 27) and partly by the central region (*fig. 1-4*),
- (a4) the central region comprises at least two sections, each consisting of two outer sub-sections 38 and a central sub-section 39, 41 disposed therebetween (*fig. 3-4*),
- (a5) the outer sub-sections 38 are folded over relative to the central sub-section to produce the opening (*page 8, line 20 to page 9, line 10*),
- (a6) the sections form a portion of the edging of the opening,
- (a7) and the central region, including the sections, is integral with the two peripheral regions of the metal component (*page 8, lines 5-19*).

The subject matter of **claim 1** therefore differs from the known metal component in that:

- (b) in the central region (28) there is formed for each section (29; 30) at least one similar further section (29; 30) associated with said section (29; 30), the mutually associated sections (29, 29; 30, 30) being arranged one behind the other in a direction from the first peripheral region (26) to the second peripheral region (27) and each of the two outer sub-sections (31, 33; 34, 36) of one of said sections (29, 30) being directly joined to the corresponding outer sub-section (31, 33; 34, 36) of the other section (29, 30) by a planar region (24, 25) of the metal component.

The subject matter of **claim 1** is therefore novel.

The problem addressed by the invention can therefore be considered that of:

- (i) increasing the rigidity of the metal component cf. description (page 2, line 29; page 15, lines 12-15).

This problem is solved by characterising feature (b), that is to say, by the arrangement of further sections 29, 30 "one behind the other", as can be seen in fig. 5-8.

The available prior art (see point 1 above) does not provide any teaching that would induce a skilled person looking into the technical problem to modify or adapt the D1 metal component in the light of such teaching in order to arrive at the achievement of the invention defined in **claim 1**. The subject matter

of **claim 1** therefore involves an inventive step.

- 2.2 D1 is considered to be the prior art closest to the subject matter of independent **claim 2**. The preamble of this claim is identical to the preamble of **claim 1** and is likewise fully disclosed in D1 (see (a1) to (a7) in point 2.1 above).

The subject matter of **claim 2** therefore differs from the known metal component in that:

- (b) there are provided two folded edges (16, 17; 18, 19) which are formed by the folding-over of the outer sub-sections (31, 33, 34, 36) relative to the central sub-section (32, 35), wherein the folded edge (17; 19) closer to the first outer edge (8) of the metal component points towards the first outer edge (8), and the folded edge (16; 18) closer to the second outer edge (9) of the metal component points in the opposite direction towards the second outer edge (9).

The subject matter of **claim 2** is therefore novel.

The objective problem addressed by the present invention can therefore be considered that of:

- (i) making the metal component folding process easier.

This problem is solved by characterising feature (b). Through said folding process, the ends of the webs 10, 11 are folded over along the fold lines 16, 17, 18, 19 (and not the material sections between the webs 10, 11 along the fold lines 43, 44, cf. fig. 13-15 and 17), as can be seen in fig. 2-12.

The available prior art (see point 1 above) does not provide any teaching that would induce a skilled person looking into the technical problem to modify or adapt the D1 metal component in the light of such teaching in order to arrive at the achievement of the invention defined in **claim 2**. The subject matter of **claim 2** therefore involves an inventive step.

- 2.3 Claims 3-25 are dependent on **claims 1 and 2** and likewise satisfy the PCT novelty and inventive step requirements.

Claims 26, 27, 28 and 29-30 (Group C, D, E)

- 2.4 The same arguments (see points 2.1 and 2.2 above) apply *mutatis mutandis* to the corresponding independent **claims 26, 27 and 28**. The subject matter of these claims is therefore novel and involves an inventive step.

- 2.5 **Claims 29-30** are dependent on **claims 27 and 28** and therefore likewise satisfy the PCT novelty and inventive step requirements.

3. The subject matter of claims 1-30 is industrially applicable (PCT Article 33(4)).

4. Other observations:

- (i) Contrary to the requirements of PCT Rule 5.1(a)(ii) neither the relevant prior art disclosed in document D1 nor this document is indicated in the description.
- (ii) The description is not consistent with the claims (PCT Rule 5.1(a)(iii)).